REMARKS

This paper is responsive to the Office Action dated May 1st, 2009 wherein claims 1, 2, 4-10, 13-17, 19 and 42 were rejected. Claims 20 - 35 stand withdrawn pursuant to a requirement for restriction/election. In view of the following remarks, Applicant requests further examination and reconsideration of the present patent application.

35 USC 102 / 103

Applicant respectfully traverses the rejection of claims 1, 2, 4-9, 13, 15, 16 and 19 under 35 USC §102(b), as being anticipated by or in the alternative under 35 USC §103(a) as being obvious over Hansen et al. (U.S. Patent No. 5,380,600 Hansen, hereinafter "Hansen").

Applicant respectfully submits that Hansen does not teach or disclose all the elements of the independent claim 1. Claim 1 recites *inter alia*, "said system configured to flexibly control production of hydrogen and electricity on demand."

As clearly brought out in Fig. 1 and multiple places in the current specification such as page 7, lines 18 – 21, the separation unit is configured to produce a hydrogen rich stream 28. The Gas turbine 46 and Fuel cell assembly 18 produce electrical energy. Thus the system produces both hydrogen and electrical energy. Moreover, as clearly brought out in page 18, lines 10 – 16, "The co-production systems in accordance with the various embodiments discussed above have the flexibility to control the production of hydrogen from the anode exhaust stream and generation of electricity depending on the demand. For higher demand of exported hydrogen, the fuel call assembly is operated on low utilization mode wherein the anode exhaust stream comprises higher amount of unutilized hydrogen, which may be recovered for export using the separation unit downstream of the fuel cell assembly."

Hansen clearly lacks such flexibility.

First, Hansen does not produce both hydrogen and electricity. Hansen shows a closed loop system that produces (only) electricity using the Molten Carbonate Fuel cell. *See* claim 1. As clearly seen from Fig. 1, hydrogen separated from the anode exhaust in hydrogen recovery unit 18 is recycled to anode supply line 40 via line 90. (Hansen, column 3, lines 34-38). Clearly Hansen lacks features of co-production of hydrogen and electricity. Since the system is configured to produce only electricity – there is no

teaching / suggestion / motivation of having a flexibility to flexibly control production of hydrogen and electricity on demand. Hansen clearly lacks in this feature and hence cannot anticipate current invention as recited by claim 1.

Therefore, Applicant submits that Hansen, does not disclose every element of independent claim 1 and does not anticipate it under 35 USC 102(b). Claims 2, 4-10, 13-17, 19 and 42 depend directly or indirectly from claim 1. Applicant respectfully requests that the Examiner withdraw the rejection under 35 USC 102 / 103.

35 USC §103

The Examiner has rejected claims 1, 2, 3-10, 15, 17, 19 and 42 under 35 USC §103(a) as being unpatentable over over Farooque (U.S. Patent No. 5,084,362, hereinafter "Farooque") in view of Nakamura et al. (U.S. Patent No. 7,052,790, hereinafter "Nakamura") as evidenced by Baker (U.S.Patent No. 3,522,101, hereinafter "Baker"). The Examiner has further rejected claims 13, 14 and 16 under 35 USC §103(a) as being unpatentable over Farooque and Nakamura as applied to claims 1 and 15 and in further view of Sridhar et al. (U.S. Publication No. 2004/0202914, hereinafter "Sridhar").

First, claim 1 recites, features of system "produce a hydrogen rich stream" and "system configured to flexibly control production of hydrogen and electricity on demand"

Thus, to anticipate or render the claims obvious, the system recited in the reference has to produce both hydrogen and electrical energy and have a flexibility of operation to produce either based on demand (emphasis added). Farooque, as shown in FIG. 1, recites a closed loop system and produces only electrical energy. Thus it lacks features of co-production of hydrogen and electricity.

Examiner mentions that Farooque teaches producing hydrogen to supply to gasifier. So it is unclear exactly what Applicant is arguing when Applicant illustrates that Farooque produces hydrogen for the system but then alleges that Farooque doesn't produce hydrogen and only produce electricity.

MPEP 2141.02 VI clearly mentions that **PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY.** The references must be considered as a whole and must suggest

the desirability and thus the obviousness of making the combination. If Farooque is taken as the whole system described – it is very clear that it does not produce both hydrogen and electricity. It is only because the Examiner is trying to dissect the reference, the production of hydrogen is coming to picture.

Arguendo, even assuming that Farooque discloses a system that produces both hydrogen and electricity, the feature of "system configured to flexibly control production of hydrogen and electricity on demand" is neither taught, suggested or motivated by Farooque. Nakamura describes a Fuel Cell System And Operation Method Having A Condensed Water Tank Open To Atmosphere. There is no mention of producing both hydrogen and electricity. Baker relates to Power Module Including Thermally Regenerative Battery And Fuel Cell And Method Of Operation.

Thus a combination with any of the secondary references does not overcome this deficiency. Hence, Applicant respectfully requests the Examiner to withdraw said rejection of claims 1, 2, 3-10, 15, 17, 19 and 42 under 35 USC §103(a) as being unpatentable over Farooque in view of Nakamura as evidenced by Baker.

The Examiner has further rejected claims 13, 14 and 16 under 35 USC §103(a) as being unpatentable over Farooque and Nakamura as applied to claims 1 and 15 and in further view of Sridhar.

As described previously, Farooque, neither alone, nor with a hypothetical combination with Nakamura, cannot teach, suggest or motivate the feature of "system configured to flexibly control production of hydrogen and electricity on demand." Borrowing the feature of carbon-dioxide separator from Sridhar does not overcome this limitation. Thus, the hypothetical combination of Farooque, Nakamura and Sridhar cannot render independent claims 1 and dependent claims 13, 14 and 16 obvious.

At least for these reasons among others, Applicant submits that the combination of these references does not teach, suggest or disclose the invention as recited in claim 1 and hence any of the claims dependent directly or indirectly on claim 1. Applicant respectfully requests that the Examiner withdraw the rejection under 35 USC 103.

Summary

For the reasons set out above, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and allowance of the application are, therefore, respectfully requested.

If the Examiner believes that anything further is necessary to place the application in better condition for allowance, the Examiner is kindly asked to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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